

09/555,534

AMENDMENTS TO THE SPECIFICATION:

Please amend the paragraph that begins on page 10, line 15 of the Substitute Specification filed on June 17, 2002 as follows:

Another object of the invention is a protein or a peptide vaccine to be used in humans, prophylactic or therapeutic against AIDS, AIDS-associated tumors and HIV-associated syndromes and symptoms and comprised of recombinant wildtype Tat protein or its mutants (~~Seq. 1-5~~ SEQ ID NOS:1, 3, 5, 7 and 9), expressed and purified as described, or wild-type or mutated Tat peptides (~~Seq. Pep. 1-7~~, SEQ ID NOS:11-17, respectively), administered alone or conjugated with T-helper tetanus toxoid epitope or other T-helper epitopes.

Please amend the paragraph that begins on page 10, line 25 of the Substitute Specification filed on June 17, 2002 as follows:

Another object of the invention is a vaccine as described above, in combination with recombinant proteins of ~~immuno-modulant~~ immuno-modulant cytokines like IL-12, IL-15 or others molecules or part of these, capable of increasing the antiviral immune response, or a vaccine constituted by Tat/IL-12, Tat/IL-15 or Tat/other fusion proteins, or part of these, capable of increasing the antiviral immune response. Another object of the invention is a DNA vaccine, to be administered in humans, prophylactic or therapeutic, against AIDS, AIDS-associated tumors and HIV-related syndromes and symptoms, constituted by vectors coding for wild-type Tat or its mutants (~~Seq. 1-5~~ SEQ ID NOS:1, 3, 5, 7 and 9), or part of these, inserted in the expression plasmid vector pCV0 or other vectors.

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2-18-10
Please amend the paragraph that begins on page 24, line ²⁰~~21~~ of the Substitute Specification filed on June 17, 2002 as follows:

Many difficulties have been encountered in the past to purify and maintain the biological activity of the Tat protein owing to the easiness to oxidate, aggregate and lose activity. This is due to the high amounts of cysteine residues which can form intra- and inter-molecular bonds, thus modifying the conformation of the native protein (Ref. 159, 41). The cDNA or the tat gene (~~Seq. 1~~ SEQ ID NO:1, example 2), which has been cloned in the pL-syn vector, provided by Dr. J. F. DeLamarter and B. Allet (Glaxo Institute for Molecular Biology S.A., Ginevra, Svizzera), has been used for the expression of the protein in E.Coli.